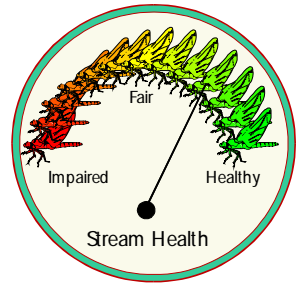


EcoSummary

BioRecon Report



Powell Creek @ SR78, Lee County 19 February 1998

BioReconnaissance (BioRecon): A rapid, cost effective screening mechanism for identification of biological impairment.

Purpose

A single BioRecon sampling was performed at this site in order to examine the water quality in the stream and document the organisms that inhabit a potentially impacted stream in this geographical area. This is important because streams which are affected by human activities do not necessarily have poor water quality, and the biological thresholds on which BioRecon is based require further refinement.

Basin Characteristics

Powell Creek's drainage basin is almost entirely residential, a medium density mixture of single family fixed and mobile homes, with some undeveloped land and a few commercial sites. The creek flows into the Caloosahatchee River.



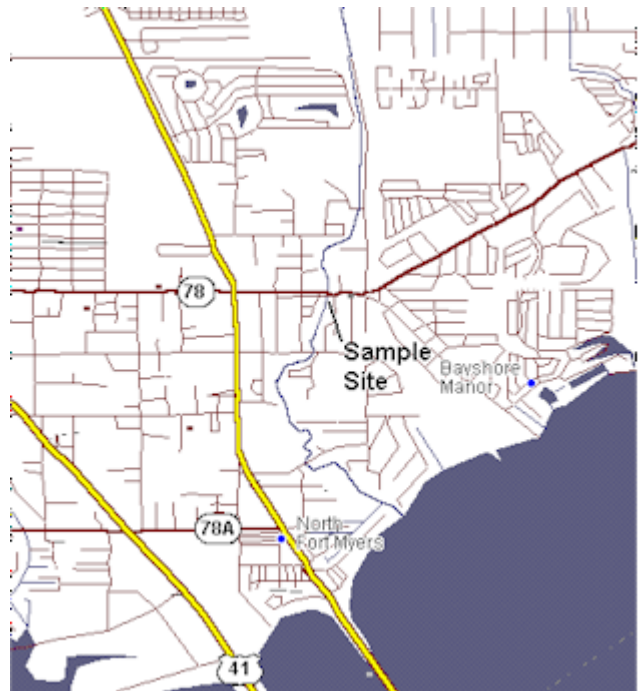
Results

The BioRecon indicated that Powell Creek has adequate water quality to support a healthy aquatic insect community. **The stream passed all three BioRecon thresholds for a healthy stream.** There were **26** different taxa (minimum threshold = 18), a Florida Index score of **12** (threshold = 10), and **7** caddisflies or mayflies (threshold = 4). **Water chemistry met Class 3 standards for all parameters tested.** The site is located in a commercial area with a highly altered riparian (stream bank) zone. Upstream it is channelized, and has a thick growth of vegetation. In water level was very high due to recent rains. The in-stream habitat consisted of aquatic vegetation (60%), sand (35%), with small patches of roots and leaf pack. Flow was strong

(0.50 m/sec). The habitat score was 106 out of 160 possible points.

Significance

These results indicate that this stream has adequate water quality to support a healthy aquatic community, despite some potential problems. Adequate flow and sufficient vegetation in the stream appear to balance any problems caused by the quality of stormwater runoff.



Suggestions

Encourage good land use practices in the basin, and maintain a monitoring program to further refine BioRecon thresholds for streams and detect effects of changes in local land use.



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